



Oracy and Vocabulary

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Sentence stems</p> <p>I think/don't think this because..</p> <p>It feels the same/different because..</p> <p>It is not the same because..</p> <p>It has changed because..</p> <p>I like this because..</p> <p>I've got the taller/shorter one</p> <p>I think.. will happen</p> <p>First, I., next, I.,</p> <p>At the end ... happened</p>	<p>Sentence stems</p> <p>I agree with ...because..</p> <p>It is right/wrong because..</p> <p>The experiments are alike/different because..</p> <p>I found the experiment hard/easy because..</p> <p>In my opinion..because..</p> <p>When I did ..this happened..</p> <p>How/when/why/where?</p> <p>I know X because...</p> <p>My partner thinks... we agree/disagree because..</p> <p>After that I.. Finally I...</p>	<p>Sentence stems</p> <p>I agree/disagree with their prediction because..</p> <p>However/also...</p> <p>They are similar/alike... They differ..</p> <p>I know the results are different because...</p> <p>This happened/will happen because...</p> <p>How do you know that?</p> <p>I think my experiment worked/didn't work because...</p> <p>The results were interesting because...</p> <p>My bar chart jumped up in 5s because...</p> <p>I predict that X will happen because...</p>	<p>Sentence stems</p> <p>An argument for/against their prediction is...</p> <p>I understand x however due to/therefore/meanwhile...</p> <p>I accept your hypothesis, however I believe...</p> <p>As a result of X, I conclude/found that...</p> <p>After looking at the data/On observation I...</p> <p>It appears to be increasing/decreasing due to...</p> <p>It reminds me of the experiment where we...</p> <p>It was successful/ambitious because...</p> <p>You could improve this by...</p> <p>I appreciate/understand X's opinion as they are going along the lines of...</p> <p>This is probable because...</p> <p>The outcome will be x because...</p>	<p>Sentence stems</p> <p>I understand that X but would argue that...</p> <p>An argument for/against is X and X</p> <p>X and X have the following points in common...</p> <p>One similarity/difference between X and X hypotheses are...</p> <p>Having analysed the data, I conclude that...</p> <p>It appears that my hypothesis was incorrect due to...</p> <p>Next time, I suggest you improve your experiment by X and X</p> <p>A major difference between X and X is that...</p> <p>Because I know that ice melts, I know that...</p> <p>Most reasonable people would agree that...</p> <p>All of our experiments lead me to consider that..</p> <p>After hearing all the evidence and reviewing the data it would appear that...</p> <p>Subsequently/in the beginning/however it became apparent that...</p>	<p>Sentence stems</p> <p>I have two main reasons for believing this. First... second...</p> <p>Perhaps some people may argue that...</p> <p>It is clear that previous data suggests X, based on this my hypothesis is X</p> <p>Furthermore they are both...</p> <p>I deduce/deduct that...</p> <p>In effect/the fact is...</p> <p>It appears/reminds me/seems to be...</p> <p>My view is X. This is supported by the fact that...</p> <p>Possible improvements may include...</p> <p>As a result/to begin with/In conclusion/For example...</p> <p>I think the question is related to X therefore I predict the subject is related to physics/chemistry/biology</p> <p>Knowing X means we can work out X</p> <p>I would like to prove/disprove X</p> <p>It is true that..</p> <p>I believe that X has happened, therefore I think...</p> <p>Following this/subsequently/in comparison, due to the fact that...</p>	<p>Sentence stems</p> <p>On the one hand X but X</p> <p>Convince me that X is your hypothesis given that X happened.</p> <p>In some ways X and X are alike. For instance they both..</p> <p>Another feature they have in common/ they also differ...</p> <p>The similarities/differences seem more significant than the similarities/differences because...</p> <p>I have been lead to the conclusion/based on the evidence that X due to the fact that ...</p> <p>Having considered X I can infer that...</p> <p>My opinion is supported by the fact that...</p> <p>Possible improvements may include...</p> <p>Alternatively, have you considered...</p> <p>This data set has altered my opinion that...because...</p> <p>I approached it methodically by...</p> <p>I was systematic in my method when...</p> <p>Having analysed/pondered...</p> <p>In light of X I predict that...</p> <p>The chances/likelihood/upon consideration of the relevant factors...</p> <p>The consequence of...</p> <p>Initially, the results were x, however during Y, Z happened...</p>

<p>Vocabulary</p> <p>General Natural, wild, wildlife, native.</p> <p>Places Habitats - Woodland, desert, ocean, jungle, Arctic. Microhabitats - Log, stone, tree, dead leaves, soil, moss, Seaside, rocks, sand, pebbles</p> <p>Objects British Autumn fruits and Vegetables: (e.g. apples, pears, beetroot, carrots, potatoes, butternut squash, sweetcorn, cauliflower). Bread: Mix, knead, prove, rise.</p> <p>Materials Object, material, properties, suitable, pipette, recycling. Properties: Waterproof, strong/weak, dense/less dense, hard/soft. -Bubble wrap, foil, plastic, fabric, paper, straw, sticks, bricks, metal, glass</p> <p>Plants Grow, Lifecycle: - Roots, shoots, stem, leaves, buds, flower, Water, light, warmth, temperature, soil, compost</p> <p>Animals Body parts, Backbone, skeleton, soft body, shell, Adapted, hibernate, migrate, Predator, prey, Nocturnal, Adult/parent, baby, Lifecycle: - Egg, caterpillar, chrysalis, Butterfly. Birds (owl, duck), insects/bugs/ minibeasts (lacewing, ladybird, woodlouse, bee, wasp, spider, tarantula, earthworm, snail, locust, cricket, millipede, butterfly, caterpillar), fish, reptiles (snake, tortoise, gecko), amphibians, mammals (mouse, shrew, vole, hare, fox) What animals give us - Meat, roast chicken, bacon/ham, milk/cheese/ butter, wool, hair, eggs, honeycomb, honey.</p> <p>Environments Environment, Woodland, valley, Playground, Recycling, compost.</p>	<p>Vocabulary</p> <p>Plants Plant, roots, stem, trunk, branches, leaves, flower (petals), fruit, bulb, seed, evergreen, deciduous, vegetables, (variety of common plant names, e.g. geranium, dandelion, oak, bean)</p> <p>Animals Animals, Invertebrate (worm, spider, insect (various), woodlouse, centipede), fish, amphibian, reptile, bird, mammal, carnivore, herbivore, omnivore, head, neck, arm, elbow, hand, leg, knee, foot, face, ear, nose, eye, hair, mouth, teeth, sight, hear, smell, touch, taste</p> <p>Everyday materials Solid, bending, squashing, twisting, stretching, similarity, difference, property, hard/soft, shiny/dull, bendy/not bendy, stretchy/stiff, transparent/opaque, rough/smooth, waterproof/not waterproof, absorbent/not absorbent, metal, plastic, glass, brick, paper, fabric, foil, elastic, wood</p> <p>Seasonal changes Season, sun, sky, autumn, winter, spring, summer, year, month, week, day, weather (various), temperature, weather, rainfall, daylength, sun, shadow</p>	<p>Vocabulary</p> <p>Plants Grow, seed, bulb, (tuber), leaf, root, stem, flower, fruit, germination, seedling, water, light, temperature, reproduction</p> <p>Living things and their habitats Living, dead, non-living, movement, making energy (respiration), sensitivity, growth, reproduction, getting rid of waste (excretion), nutrition, habitat, microhabitat, adapted, adaptation, conditions, light, temperature, water, humidity, food chain</p> <p>Animals Growth, reproduction, offspring, life-cycle (stages for examples, e.g. human, frog, butterfly, etc), baby, offspring, toddler, child, teenager, adult, water, food (nutrition), air (breathing, respiration), diet, balanced, obesity, starvation, exercise, fitness (heart rate/pulse), hygiene, microbes (bacteria, fungi, viruses)</p> <p>Uses of everyday materials Material types (e.g. wood, metal, plastic, wool, cotton, paper, cork, rock, etc), solid, liquid, gas, waterproof, hard, soft, flexible, stretch, bend, twist, squash, shiny, dull, warm, cold, colour, more, less, fluid, flow</p>	<p>Vocabulary</p> <p>Plants Grow, seed, bulb, (tuber), leaf (petiole), root (root hairs), stem, flower (petals, sepals, stamens, ovary, pollen, eggs), fruit, germination, seedling, water, light, temperature, nutrients, reproduction, pollination (wind, insect), fertilisation, seed, dispersal</p> <p>Animals including humans Nutrition, nutrients, diet (balanced/unbalanced), sugar, protein, fat, vitamins, minerals, water, energy, oxygen, feeding, eating, photosynthesis, circulation, blood, heart, vertebrate, invertebrate, skeleton (simple examples of bones), support, protection, movement</p> <p>Rocks Rock (types), smooth, shiny, rough, crumbly, grainy, crystals, hard, soft, cold (etc), fossil (types), sediment, layers, pressure, soil, organic matter, vegetation, compost</p> <p>Light Light, dark/darker/darkest, bright/brighter/brightest, dim, light source (various), eye, reflect, reflective, shiny, dull, shadow, block (transparent, opaque)</p> <p>Forces and magnets Force, push, pull, contact force, distance force, gravity, force arrow, movement (associated terminology), magnetic, magnetism, poles (north, south), attract, repel, non-magnetic</p>	<p>Vocabulary</p> <p>Living things and their habitats Environment, habitat, micro-habitat, key, classification (genus, species), (binomial name), animal, vertebrate, fish, amphibian, reptile, bird, mammal, invertebrate, snails, slugs, spiders, woodlice, insects, worms, plants, trees, flowering plants (grasses, etc), non-flowering plants (conifers, ferns, mosses)</p> <p>Animals including humans Teeth, incisor, canine, molar, pre-molar, acid, bacteria, plaque, enamel, digestion, mouth, gullet (oesophagus), stomach, small intestine, large intestine, anus (liver / pancreas), food chain, producer, consumer, predator, prey, carnivores, herbivores, omnivores.</p> <p>States of matter State, solid, liquid, gas, characteristic, property, particle, heat, energy, (bond/attraction), heating, cooling, melting, freezing, evaporating, condensing, water cycle</p> <p>Sound Sound, vibration, volume, pitch, high/low, quiet/loud, tension</p> <p>Electricity Electricity, energy, source, renewable/non-renewable, circuit, component, battery/cell, bulb, buzzer, motor, series, connector/wire, switch, conductor, insulator,</p>	<p>Vocabulary</p> <p>Living things and their habitats Life cycle (various, associated terminology), reproduction (internal / external), gamete, petals, sepals, carpel, stigma, ovary, anther, stamen, pollen, pollination, fertilisation, dispersal</p> <p>Animals including humans Baby, toddler, child, adolescent, adult, offspring, puberty, pubic hair, egg, sperm, testes, ovaries, oviduct, uterus, cervix, vagina, vulva, sperm duct, foreskin, scrotum, glands, erection, ejaculation, intercourse, fertilisation, gamete.</p> <p>Properties and changes of materials Material (types), properties (types), solid, liquid, gas, solution, mixture, particle, energy, dissolve (solute, solvent, saturation), filtering, sieving, evaporating, reversible, irreversible</p> <p>Earth and space Solar system, planets (names), star, sun, Earth, moon, gravity, orbit (elliptical), rotation, axis, poles, equator, northern/southern hemisphere, shadow, day, (lunar) month, year, leap year, eclipse, luminous, non-luminous, phases (names)</p> <p>Forces Force, contact, non-contact, push, pull, friction, air resistance, water resistance, up-thrust, drag, gravity, balanced, unbalanced, force arrow, accelerate, decelerate, Newton, force meter, mass, multiplier, lever, pulley, gear, pivot, fulcrum, effort, load, machine</p>	<p>Vocabulary</p> <p>Living things and their habitats Classification, binomial, kingdom (phylum, class, order, family, genus, species), vertebrate, invertebrate, microorganisms, bacteria, fungi, virus, (protist), classification characteristics (various), spider/number key, diversity, variation</p> <p>Animals including humans Organs (various), circulatory system, circulation, blood, plasma, red blood cells, oxygenated, deoxygenated, exchange, artery, vein, heart, heart chambers, pulse, recovery time, drugs (various), alcohol, nicotine, tar</p> <p>Evolution and inheritance Fossil, extinction, variation, inheritance, feature, adaptation (various), species, natural selection, evolution</p> <p>Light Light source, luminous, non-luminous, energy, absorbed, reflected, transmitted, scattered, shiny, opaque, reflective, transparent, translucent, image, plane, concave, convex, mirror, shadow.</p> <p>Electricity Circuit, electricity, energy, cell, battery, positive terminal, negative terminal, voltage (V), Amps (A), current, wire, insulator, resistance, resistor, filament, lamp, buzzer, motor, switch, series, Voltmeter, Ammeter</p>
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<p>Changes Seasons:- Spring (growth, baby animals) Summer, Autumn (Harvest), Winter Weather: Sun, rain, wind, snow, ice, frost, sleet, hail, Cold/warm/hot, Day length, day light</p>						
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Explaining Science						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Can I...? Remember simple facts about Science with help Use relevant words when I talk or describe what is happening using Scientific words Use pictures to describe what is happening Decide which adult statement is correct and which is incorrect to describe what is happening Explain why something happened with help</p>	<p>Can I...? Remember simple facts about Science with help Use relevant words when I talk or write -'Science' words Describe what is happening Use pictures or actions to describe & explain Select information to use in an answer with help</p>	<p>Can I...? Remember simple facts about Science Remember science words with help Use science facts to describe events I have seen Use and add labels on diagrams to identify & describe Select relevant information to use in an answer</p>	<p>Can I...? Use science ideas/facts to describe & explain Remember science words I have used before Begin to use science models to describe (sequenced) Add labels & relevant information to diagrams Link relevant information together to make an answer</p>	<p>Can I...? Show a developing knowledge & understanding of science ideas and concepts Use simple science words correctly Use science models to describe (what is happening) Annotate diagrams to help describe & explain Cluster related information together into points</p>	<p>Can I...? Show a clear knowledge and understanding of science ideas and concepts Begin to use complex science words accurately Use science models to describe and begin explain why and how Begin to draw and annotate my own diagrams Select and prioritise information to create an argument/answer</p>	<p>Can I...? Show a secure mastery of knowledge and understanding across KS2 Use complex science words correctly Use science models to describe and explain how, why and use logical steps Draw and annotate highly complex diagrams Present a deep and logical argument to answer a question</p>

Classification						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Can I...? Use pictures to describe the correct order of a process Use scientific words to group things with support - e.g these are insects, these are mammals Group familiar things by size, colour, shape etc with help Use my senses to identify properties of materials Use large scale carroll/venn diagrams with help - eg 'rough, not rough, grey, not grey'</p>	<p>Can I...? Sort using instructions or pictures Group familiar things by size, colour, shape etc and use scientific words to group things independently Use my senses to identify properties of materials Use large scale venn/carroll diagrams independently</p>	<p>Can I...? Use a simple spider key with obvious differences Group by difference, similarity or change Link properties of materials to an application Use venn/carroll diagrams independently</p>	<p>Can I...? Use large spider keys with obvious difference Create groups for sorting Combine properties of materials required for an application</p>	<p>Can I...? Use spider keys with fine differences Create appropriate groups for sorting Describe properties of materials required for an application</p>	<p>Can I...? Construct spider and number keys Group and sub-group by easily observable features Explain how properties suit an application</p>	<p>Can I...? Construct both spider and number keys with complex detail Group and re-group using combinations of features Describe how material properties can change and the science behind it</p>

Designing experiments						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

<p>Can I...? With support, talk about what they think might happen next, drawing on their own experiences from play With support, carry out simple investigations through play Responding to prompts, say what happened to objects, living things or events</p>	<p>Can I...? Suggest what might happen with help Suggest everyday items to use in an investigation Work safely when given instructions Suggest how to find an answer with help Be aware things change in an investigation Follow short demo, spoken and picture instructions</p>	<p>Can I...? Suggest what might happen in my investigation Group science equipment by their use (with help) List some common dangers to safe working Suggest an idea to test from observations Identify variables in investigations Follow demo, spoken & picture instructions in order</p>	<p>Can I...? Predict cause and effect (casual prediction) Select suitable equipment for a task (know correct use) Notice obvious risks in my investigation Identify cause & effect in my investigation Suggest a suitable data range for a variable to test Follow short written instructions (following a demo)</p>	<p>Can I...? Predict a trend (relationship prediction) Select suitable equipment for a task (whole/decimal scale) Notice obvious risks & describe safe use of equipment Plan a fair test by selecting variables to change & measure Suggest suitable data range & interval for a variable Design & write a simple ordered method (from demo)</p>	<p>Can I...? Use knowledge & understanding to explain my prediction (relationship) Select suitable equipment (correct scale for task) Predict obvious risks & suggest safe use of equipment Plan a fair test & ensure controlled variables are kept the same Suggest data range, interval & sufficient readings (>5) Design & write an ordered method (controls variables)</p>	<p>Can I...? Use knowledge and understanding to make a hypothesis (relationship) Select suitable equipment (correct scale & use for task) Plan to minimise risk & act on safety suggestions Plan a reliable fair test (confident use of variable terminology) Plan to collect repeat readings (>3) & calculate mean Design & write a reliable ordered method (repeats)</p>
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Data, Tables and Graphs						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Can I...? Use senses and simple equipment to explore using binoculars, magnifying glasses, a range of different sized measuring cylinders, magnets, a range of scales etc Use pictograms with support to record</p>	<p>Can I...? Position numbers on a number track Use non-standard units and can list some standard units Use a simple table by recording in pictures & words Add to block charts by counting up Add to pictograms to record what I have seen,</p>	<p>Can I...? Measure labelled divisions on a number line Measure whole number values in standard units Use a simple table by recording words and numbers Plot whole number values for one axis (all labelled) Construct block charts and pictograms</p>	<p>Can I...? Measure unlabelled divisions on a number line Measure in & compare values in standard units Use a frame to construct a simple table Plot whole number values for one axis (some unlabelled) Draw bars on whole number bar charts</p>	<p>Can I...? Measure unmarked divisions on a number line (includes zero) Measure in & convert values in standard units Compare and order decimals (2dp) Construct a simple table correctly Plot coordinates in the first quadrant Construct bar charts correctly (including axis)</p>	<p>Can I...? Measure divisions on a number line past zero (negatives) Measure/convert values in standard units (including area) Round and +/- decimals (1dp) Use a frame to construct a complex table Join plotted coordinates with straight lines Use a frame to construct a scatter/line graph</p>	<p>Can I...? Decide on limits of a number line and scale up and down measure/calculate standard units (inc area/volume) Round and calculate with decimals (2dp) Construct a complex table to show repeated data and begin to show calculations Draw a trend line for linear data (all quadrants) Begin to draw trend line for non-linear data Construct a scatter graph correctly (including axis)</p>

Making conclusions						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Can I...? Answer questions using data found from experiments Explain why something happened Describe the changes using science words with support</p>	<p>Can I...? Talk about simple whole number patterns Use 'more or less' to compare numbers Describe the changes that are happening Explore different ways to do things through play</p>	<p>Can I...? Describe simple features and patterns in data and charts See obvious differences in sets of numbers Describe the changes that have happened Suggest a different way to do things with helps</p>	<p>Can I...? Describe simple patterns in data, charts and graphs See subtle differences in sets of numbers Describe my results by linking cause and effect Suggest improvements to my method</p>	<p>Can I...? Describe simple patterns, trends and relationships in data See differences (error) in repeated data Describe trends & begin to use science to explain Suggest sensible improvements to my method</p>	<p>Can I...? Describe patterns, trends & relationships in data Spot anomalous data that doesn't fit the pattern Use data in my conclusions & use science to explain Identify strengths & weaknesses & improvements</p>	<p>Can I...? Describe and compare changing patterns, trends and relationships Spot anomalous data & explain from the method, begin to use this to discuss how to make my results more reliable Use 1&2 degree data in my conclusions & science models to explain Suggest limitations (use data)</p>

							& practical improvements, begin to start to justify these improvements.
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Programmes of study						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Places -difference between animal habitats -using their real life experiences, discuss the difference between a forested area and the seaside -difference between home and school</p> <p>Objects -fruits and vegetables -dough and cooked bread, -solids and liquids in cooking -making bigger/smaller shadows -floating and sinking</p> <p>Materials -waterproof/not waterproof -strong and weak -recyclable/not -materials melting in the sun or don't melt</p> <p>Living things -scientific names of body parts of familiar animals including humans -what owls and other birds eat -nocturnal and diurnal animals -adult and baby animals and their correct scientific names - pet shop animals -how animals move and the sounds they make -how plants grow without light, water, soil and air</p> <p>Changes -changes in rainfall in different seasons</p>	<p>Plants -name a variety of common wild and garden plants, including deciduous and evergreen trees -identify and describe the basic structure of a variety of common flowering plants, including trees</p> <p>Animals -identify & name a variety of common animals including fish, amphibians, reptiles, birds and mammals -identify & name a variety of common animals that are carnivores, herbivores and omnivores -describe & compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) - identify, name, draw & label the basic parts of the human body and say which part of the body is associated with each sense.</p> <p>What to look for -identify and name the parts of a range of local plants, begin to notice the difference in structure -compare and contrast a collection of items, sorting into categories: 'living', 'dead' and 'things that have never been 'alive' - name a variety of familiar & unfamiliar animals & identify their key features -relate each of the human senses to organs & how they're use in an activity e.g eating</p> <p>Everyday materials -distinguish between an object</p>	<p>Plants -observe and describe how seeds and bulbs grow into mature plants -find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p> <p>What to look for -stages of development of plants with comparisons -compare and contrast growth patterns</p> <p>Living things and their habitats -explore & compare the differences between things that are living, dead, & things that have never been alive -identify that most living things live in habitats to which they are suited & describe how different habitats provide for the basic needs of different kinds of animals & plants, and how they depend on each other -identify & name a variety of plants and animals in their habitats, including microhabitats -describe how animals obtain their food from plants & other animals, using the idea of a simple food chain, & identify & name different sources of food</p> <p>What to look for -explain why there may be a limit as to how many things can live in one area -identify the effects of shortage of food or factors that plants need to stay alive across other types of plants</p> <p>Animals -notice that animals, including</p>	<p>Plants -identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers -explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant -investigate the way in which water is transported within plants -explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p> <p>What to look for -suggest why plants may vary in size and shape comparing across species -link plant specifications to habitat -explain how water is carried up from the soil and compare across species -compare seed pollination across species</p> <p>Animals including humans -identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat -identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p> <p>What to look for -explain why a varied diet is important to all animals -compare skeletons across species</p>	<p>Living things and their habitats -recognise that living things can be grouped in a variety of ways -explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment -recognise that environments can change and that this can sometimes pose dangers to living things.</p> <p>What to look for -suggest why some ways of grouping living things may be more useful than others, e.g. why grouping by number of legs is an easy aid to identification. -Describe examples of living things adapting to environmental change, e.g. urban foxes, and examples of extinction due to environmental change.</p> <p>Animals including humans -describe the simple functions of the basic parts of the digestive system in humans -identify the different types of teeth in humans and their simple functions -construct and interpret a variety of food chains, identifying producers, predators and prey.</p> <p>What to look for -explain why the simple functions of the basic parts of the digestive system in humans are necessary. -explain the function of different teeth and compare these across species -suggest what might happen in</p>	<p>Living things and their habitats -describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird -describe the life process of reproduction in some plants and animals.</p> <p>What to look for -suggest similarities in the life cycles of a number of vertebrates, e.g. comparison of dog, human and bird embryos. -compare the process of reproduction in animals and plants, e.g. compare and contrast fertilisation.</p> <p>Animals including humans -describe the changes as humans develop to old age.</p> <p>What to look for -Describe the changes as humans develop to old age, e.g. trends in changes to size, weight, mobility etc. -suggest why some of the changes that take place in humans happen, e.g. suggest why babies have disproportionately large heads compared to adults.</p> <p>Properties and changes of materials -compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets -know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a</p>	<p>Living things and their habitats -describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals -give reasons for classifying plants and animals based on specific characteristics.</p> <p>What to look for -explore why some living things, such as the duck billed platypus, don't neatly fit into one group. -explain why other features are less useful as a basis for classification, such as size or colour.</p> <p>Animals including humans -identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood -recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function -describe the ways in which nutrients and water are transported within animals, including humans.</p> <p>What to look for -explain some characteristics of the heart, blood vessels and blood, e.g. explain that the arteries are thicker because they carry blood at a higher pressure. -explain how decisions about lifestyle can affect the quality of life, e.g. recognise that making excessive use of</p>

	<p>and the material from which it is made</p> <ul style="list-style-type: none"> -identify & name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock -describe the simple physical properties of a variety of everyday materials -compare & group together a variety of everyday materials on the basis of their simple physical properties. <p>What to look for</p> <ul style="list-style-type: none"> -compare the same object made from different materials in terms of its effectiveness -identify typical uses of materials -use simple physical properties to suggest classifications <p>Seasonal changes</p> <ul style="list-style-type: none"> -observe changes across the four seasons -observe and describe weather associated with the seasons & how day length varies. <p>What to look for</p> <ul style="list-style-type: none"> -recognise changes within seasons as well as between seasons -make & test predictions relating to changing day length & weather patterns. 	<p>humans, have offspring which grow into adults</p> <ul style="list-style-type: none"> -find out about and describe the basic needs of animals, including humans, for survival (water, food and air) -describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. <p>What to look for</p> <ul style="list-style-type: none"> -describe relationships between adult and their offspring and compare across species -suggest how basic need of different animals influence their choice of habitat <p>Uses of everyday materials</p> <ul style="list-style-type: none"> -identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses -find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. <p>What to look for</p> <ul style="list-style-type: none"> -identify that some changes to shapes or permanent and some are temporary -identify limitations and suitability of materials 	<p>Rocks</p> <ul style="list-style-type: none"> -compare and group together different kinds of rocks on the basis of their appearance and simple physical properties -describe in simple terms how fossils are formed when things that have lived are trapped within rock -recognise that soils are made from rocks and organic matter. <p>What to look out for</p> <ul style="list-style-type: none"> -explain the importance of studying fossils -compare different soils in terms of composition - suggest uses for different types of rocks based on their properties <p>Light</p> <ul style="list-style-type: none"> -recognise that they need light in order to see things and that dark is the absence of light notice that light is reflected from surfaces -recognise that light from the sun can be dangerous and that there are ways to protect their eyes - recognise that shadows are formed when the light from a light source is blocked by an opaque object -find patterns in the way that the size of shadows change. <p>What to look out for</p> <ul style="list-style-type: none"> -recognise that vision involves light travelling to the eyes -recognise that some surfaces are better at reflecting light than others -suggest how light is travelling to form a shadow -relate position of an object to light source to size of shadow <p>Forces and magnets</p> <ul style="list-style-type: none"> -compare how things move on different surfaces -notice that some forces need contact between two objects, but magnetic forces can act at a distance -observe how magnets attract or repel each other and attract some materials and not others -compare and group together a 	<p>a food chain if the population of one of the organisms changes.</p> <p>States of Matter</p> <ul style="list-style-type: none"> -compare and group materials together, according to whether they are solids, liquids or gases -observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) -identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. <p>What to look for</p> <ul style="list-style-type: none"> -recognise that some materials (e.g. toothpaste) cannot be easily classified as solid, liquid or gas. -apply the relationship between rate of evaporation with temperature to everyday contexts. -suggest patterns in which kinds of materials change state at higher or lower temperatures. <p>Sound</p> <ul style="list-style-type: none"> -identify how sounds are made, associating some of them with something vibrating -recognise that vibrations from sounds travel through a medium to the ear -find patterns between the pitch of a sound and features of the object that produced it -find patterns between the volume of a sound and the strength of the vibrations that produced it -recognise that sounds get fainter as the distance from the sound source increases. <p>What to look out for</p> <ul style="list-style-type: none"> -group sound-making objects in terms of how they make sounds. -compare the effectiveness of different media in terms of their ability to transmit sound. 	<p>solution</p> <ul style="list-style-type: none"> -use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating -give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic -demonstrate that dissolving, mixing and changes of state are reversible changes -explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda. <p>Things to look out for</p> <ul style="list-style-type: none"> -suggest why those properties might influence the selection of those materials for certain uses. -Identify that some soluble materials are more soluble than others. -Explain why a particular separation method might be more effective. -classify various processes relating to materials as reversible or irreversible. -provide examples of when changes being irreversible are a good thing, e.g. making bricks, or not, e.g. non-biodegradable plastic bags. -suggest limitations of the uses of selected materials based on test results. <p>Earth and Space</p> <ul style="list-style-type: none"> -describe the movement of the Earth, and other planets, relative to the Sun in the solar system -describe the movement of the Moon relative to the Earth describe the Sun, Earth and Moon as approximately spherical bodies -use the idea of the Earth's rotation to explain day and night and the apparent 	<p>convenience foods may introduce more additives into the diet.</p> <ul style="list-style-type: none"> -compare the ways in which nutrients and water are transported in two animals that are quite different. <p>Evolution and inheritance</p> <ul style="list-style-type: none"> -recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago -recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents - identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution <p>Things to look out for</p> <ul style="list-style-type: none"> -suggest possible reasons for changes to living things over time, e.g. why penguins can't fly but are good at swimming. -recognise that selective breeding may result in offspring with certain features, e.g. pedigree dogs with a certain shape or colour. -Give examples of living things that have evolved in different ways, e.g. different types of finch. <p>Light</p> <ul style="list-style-type: none"> -recognise that light appears to travel in straight lines - use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye -explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes -use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. <p>What to look out for</p>
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